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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/771,947	02/04/2004	Hoe-Won Kim	678-1166 (P10757)	3784

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EXAMINER

LAM, DUNG LE

ART UNIT	PAPER NUMBER
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2617

DATE MAILED: 11/30/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/771,947	Applicant(s) KIM, HOE-WON	
	Examiner Dung Lam	Art Unit 2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 August 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 5 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 5 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 February 2004 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 9/21/06 has been entered.

Claim Objections

Claim 1 is objected to because of the following informalities:

Last paragraph of claim 1 reads, "wherein it is determined, by a skip determiner, whether a receiving operation for the retransmission data block is skipped, each of the MSs analyzes the header block of the received data to determine whether to receive the retransmission data block, and the transmission data is made by allocating the retransmission data block at a location where the retransmission data block of the transmission data block will be included".

As discussed in a telephone interview with applicant's counsel, Ryan Carter, the underlined phrase seems to be awkward. For examination purpose, the examiner will interpret the underlined limitation to read as "placing the requested missed packets at the location of the retransmitting data block". The examiner suggests modifying the underlined limitation and corresponding support in the specification to clarify the claim invention and making it less awkward.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 1 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Chen et al** (US Pub. No. 2003/0005382) in view of **Choi** (US Pub. No.2003/0023915) further in view of **Tikalsky** (US Pub. No. 4,908,828).

1. Regarding **claim 1**, **Chen** teaches a method for broadcasting data in a mobile communication system including a core network and a plurality of mobile stations (MSs) (102-104, Fig. 1 and wireless communication devices, WCD, para. 18), comprising the steps of: broadcasting, by the core network, transmission data over one shared downlink channel to the MSs within one base transceiver station (BTS) service area (para. 18 and 19);

and generating, by the MSs, receiving report data indicating whether the data has successfully been received (para. 20-22), and transmitting the receiving report data to the core network at uniquely assigned uplink channel positions (para. 23)

transmitting retransmission data blocks from the core network to the MSs following reception of the report data from the MSs (para. 30)

However, **Chen** does not explicitly teach that the core network splits the data of a main data block and that the data being retransmitted has a header. Nonetheless, it is known in the art that in noisy environment, large amount of data are split into smaller packets to send through the network. In an analogous art, **Choi** further teaches the

splitting of the data into smaller blocks (para.18 and 19, Fig. 1) and that the received retransmitted. **Choi** further teaches the main data block which is comprised of a header block, a retransmission data block and a transmission data block which is also known in the art (para.18); each of the MSs analyzes the header block of the received data, to determine whether to receive the retransmission data block (examining the header information to determine what to do with the datablock, para. 18-20); Therefore, it would have been obvious for one of ordinary skill in the art to combine Chen's teaching of broadcasting method and Choi's teaching of breaking the data into smaller chunk as a known technique of packetizing in data transmission for the advantage of faster retransmission of information and reducing frame error rate. However, Chen and Choi's combination does not explicitly teach the sending retransmission missed packets at the location of retransmission data block and the step of determining by a skip determiner whether or not the retransmission data block should be received or skipped. In an analogous art, Tikalsky teaches that the receiving end use the header to check and accepts only the retransmitting packets that have previously not been received and the transmission data is made by allocating the retransmission data block at a location where the retransmission data block of the transmission data block will be included (Abstract, C1 Ln 47-62, C2 Ln 43- 64, C3 L34-55, C4 Ln 49-66, C5 L27-60). Therefore, it would have been obvious for one skill in the art at the time of the invention to combine Chen and Choi's teaching with **Tikalsky's** teaching of skipping the reception of a duplicated packet based on the analysis of the header in order avoid receiving duplicate packets unnecessarily and thereby minimize resource consumption.

2. Claim **5** is rejected under 35 U.S.C. 103(a) as being unpatentable over **Chen et al** (US Pub. No. 2003/0005382) in view of **Choi** (US Pub. No. 2003/0023915) further in view of **Torsener** (US Publication No. 2005/0039101).

3. Regarding **claim 5**, Chen teaches a method of claim 1. However, he fails to teach that the MSs waits for a transmission request from the core network in order to uplink the receiving report data indicating whether the transmission data has successfully been received. In analogous art, **Torsener** teaches that Node B may request the UE to report a status (para.80). Therefore, it would have been obvious for one of ordinary skill in the art at the time of the invention to modify Chen's teaching of broadcasting data to have **Torsener's** teaching of requesting the UE to send a report status since this modification would prevent Node B from being overwhelmed/overloaded with numerous reports unnecessary under some circumstances.

Citation of Prior Art

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

"A Reliable Multicast Transport Protocol" teaches the concept of keeping a bitmap of correctly received packets in the ACK in the retransmission process.

Response to Arguments

Art Unit: 2617

Applicant's arguments with respect to claim 1 and 5 have been considered but are moot in view of the new ground(s) of rejection.

Art Unit: 2617

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dung Lam whose telephone number is (571) 272-6497. The examiner can normally be reached on M - F 9 - 6 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lester Kincaid can be reached on (571) 272-7922. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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LESTER G. KINCAID
SUPERVISORY PRIMARY EXAMINER